

REMARKS

The above amendments and these Remarks are in reply to the Final Office action dated April 2, 2009.

Rejection of Claim 11 Under 35 U.S.C. §102(b)

Claim 11 is rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,300,926 to Heirich (hereinafter “Heirich”). Applicants respectfully traverse this rejection as follows.

Heinrich discloses a wall panel including a trough 17. As shown in Fig. 1, the trough 17 extends from a top of the panel all the way to the bottom of the panel.

Claim 11 recites in part:

a corrugated section extending partially between said top edge and said bottom edge in between said first and second ends, said corrugated section forming at least one corrugation, said at least one corrugation extending from said bottom edge and terminating at a position between said bottom edge and said top edge.

The top edge, bottom edge and first and second ends are all defined in the claim. There appears to be some confusion over the teaching of Heirich. The Examiner states that Heirich teaches, “a corrugation 17 extending partially between said top edge and said bottom edge.” However, Heirich has no such disclosure or suggestion. As is clear from Fig. 1, the trough 17 starts at the top of the panel and extends uniformly down to the bottom of the panel. The trough 17 does not extend partial between the top and bottom edges. To the contrary, the trough 17 extends completely between the top and bottom edges.

Given this clear disclosure in Heirich, it is respectfully submitted that Heirich does not anticipate the invention recited in claim 11, and it is respectfully requested that the rejection of claim 11 under 35 U.S.C. §102(b) be withdrawn.

Rejection of Claims 14-15 and 25 Under 35 U.S.C. §102(b)

Claims 14-15 and 25 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,726,166 to DeRees (hereinafter “DeRees”).

Each of claims 14-15 and 25 expressly recite a shearwall. The Examiner has maintained the position that DeRees discloses a shearwall. Applicants respectfully disagree. Shearwalls have a specific meaning in

the art. Namely, they are support walls provided to resist shear loads, such as those exerted on a building during an earthquake. Shear loads are not a concern in automobiles and the support structure in DeRees is not provided to resist shear loads. Moreover, at page 9 of the Office Action, in response to applicants' remarks, the Examiner states that applicant has not recited the type of shearwall that is being claimed. Applicants have now amended claims 14, 15 and 25 to specifically point out that the shearwall is used within a wall of a building. DeRees has no disclosure, teaching or suggestion of any kind of such a shearwall. The structure in DeRees is a beam within an automobile. As stated in the Field of the Present Invention at col. 1, lines 6-10 of DeRees:

The present invention relates generally to structural support rails, and more particularly, to a novel, elongated beam having an internal web and a high strength-to-weight ratio which is especially advantageous for incorporation in the construction of a motor vehicle underbody.

Thus, it is clear that DeRees does not relate to shearwalls, and does not relate to shearwalls used in walls of buildings. Based on these grounds, it is respectfully submitted that claims 14, 15 and 25 are patentable over DeRees.

Moreover, claim 14 has been amended to further recite that the height of the central diaphragm is at least twice as long as the width. DeRees has no such disclosure. The skilled artisan would not understand that the structural support in DeRees could be higher than it is long. Again, this is because the structure in DeRees is used in a motor vehicle.

As DeRees fails to disclose a shearwall, and does not relate to a shearwall in any way, it is respectfully submitted that claims 14-15 and 25 are patentable over DeRees, and it is respectfully requested that the rejection of claims 14-15 and 25 under 35 U.S.C. §102(b) be withdrawn.

Rejection of Claims 17 and 18 Under 35 U.S.C. §102(b)

Claims 17 and 18 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,568,388 to Flachbarth (hereinafter "Flachbarth").

Claims 17 and 18 recite in part:

first and second wooden chords affixed to said central diaphragm at opposed edges of said central diaphragm and extending in the direction of said height of said central diaphragm.

The present application describes the recited chords at paragraphs 46 and 47:

In embodiments of the present invention, the shearwall 100 may further include a pair of reinforcing chords 120 and 122 affixed to the end sections 104 and 106, respectively. The chords may be formed of wood, such as for example sawn lumber from lumber groups including spruce-pine-fir, Douglas fir-larch, hem-fir and southern pine. The chords 120, 122 may alternatively be formed of engineered lumber, such as glulam and wood composites. Other types of wood are contemplated... Various affixing mechanisms may be used to affix the chords to the central diaphragm, such as for example a plurality of ¼ inch x 1½ inch Simpson Strong-Drive® screws. Other types of screws and affixation methods are contemplated....

Affixation of the chords to the central diaphragm as described above further improves the resistance of shearwall 100 to lateral forces.

Flachbarth has no disclosure of the recited chords. The Examiner indicated that Flachbarth shows chords 60 and 62. However, elements 60 and 62 are simply ends of each panel section 1, and are integrally formed with panel 1. The ends 60 and 62 are bent to form ribs, so that the rib 60 of a first panel may receive a rib 62 of a second panel to join the two panels together. The locking ribs 60 and 62 are not chords as recited in the present invention.

Moreover, at page 9 of the Office Action, in response to applicants' remarks, the Examiner states that applicant has not recited the material of the chords. Applicants have now amended claims 17 and 18 to specifically recite that the chords are wooden chords. This distinction, in combination with the above-described distinctions, lends patentable weight to claims 17 and 18 over the cited reference. As Flachbarth fails to disclose the recited chords, it is respectfully submitted that claims 17 and 18 are patentable over Flachbarth, and it is respectfully requested that the rejection of claims 17 and 18 under 35 U.S.C. §102(b) be withdrawn.

Rejection of Claim 42 Under 35 U.S.C. §102(b)

Claim 42 is rejected under 35 U.S.C. §102(b) as being anticipated by Heirich. Applicants respectfully traverse as follows.

Claim 42 recites in part:

a front *planar* section extending between said top and bottom edges and being adjacent said pair of angled sections, said front planar section having a surface residing generally in said front plane.

The Examiner indicated that this limitation was met by section 17 of Heirich. However, as is clear from Figs. 1 and 2, section 17 of Heirich is not planar. Heirich itself describes section 17 as being “arched or curved.” (col. 3, line 12). That is in fact the opposite of planar. Planar means flat. Section 17 of Heirich is not flat and is not planar. Again, Heirich is express that it is arched or curved. It is therefore respectfully requested that the rejection of claim 17 under 35 U.S.C. §102(b) be withdrawn.

Applicant pointed this distinction out in the previous response. However, the Examiner nowhere addresses this distinction in the response to applicants’ remarks section at page 9 of the Office Action. If the Examiner maintains this rejection, it is respectfully requested that the Examiner specifically point out the basis for ignoring the express disclosure of Heirich that section 17 is curved and is not planar.

Rejection of Claim 37 Under 35 U.S.C. §103(a)

Claim 37 is rejected under 35 U.S.C. §103(a) as being obvious over Heirich in view of U.S. Patent No. 4,292,782 to Schaeffer (hereinafter “Schaeffer”).

Claim 37, as amended, recites in part:

a central section of *variable width along the length direction of the shearwall* for affixing the first member to the second member. (Emphasis added).

This embodiment is shown in the present invention for example in Figs. 7-10, where the width of the central section decreases from bottom to top; Fig. 11, where the width of the central section increases from bottom to top; Fig. 12 where the sidewalls are tight against the central section; and in Figs. 13-16, where the width of the central section decreases from bottom to top and terminates between the bottom and top.

None of these embodiments are disclosed or suggested in Heirich or Schaeffer, taken alone or in combination with each other. The Examiner said that Heirich shows element 14 having a variable width. Applicants respectfully disagree. In any event, applicants have amended claim 37 to more clearly define in which dimension the central section has a variable width. The width of all portions of panel 14 in Heirich are constant in the length direction from the bottom of the panel 14 to the top of the panel 14.

Nevertheless, to expedite allowance of the remaining claims, claim 37 has been canceled from the application. It is therefore respectfully requested that the rejection of claim 37 on section 103 grounds be withdrawn.

Rejection of Claims 38-39 Under 35 U.S.C. §103(a)

Claims 38-39 are rejected under 35 U.S.C. §103(a) as being obvious over DeRees in view of U.S. Patent No. 4,736,566 to Krotsch (hereinafter “Krotsch”).

As discussed above, DeRees does not disclose or relate in any way to a shearwall. Krotsch adds nothing to the teaching of DeRees in this regard. Namely, Krotsch does not disclose a shearwall. The Examiner states in response to applicant’s remarks at page 10 of the Office Action that the environment in which the respective support members is used is immaterial. Applicants respectfully disagree. As indicated above, the shearwalls are provided for the specific purpose of resisting shear loads, such as for example those exerted on a building during an earthquake. Shear loads are not a concern in automobiles and the support structure in DeRees is not provided to resist shear loads. Similarly, as shown for example in Figs. 1 and 2 of Krotsch, the corrugations of are horizontally oriented, and incapable of withstanding shear loads. Similarly, in Fig. 3 of Krotsch, a middle portion of the central section is removed entirely. Again, such a design would be ineffective at withstanding shear loads.

In addition to the above, applicant has amended claims 38 and 39 to recite that the height of the central diaphragm is at least twice as long as the length. This feature is not shown in either reference, taken alone or in combination with each other. In Krotsch, the corrugations are oriented horizontally. In order to read on claims 38 and 39, the panel of Krotsch must be rotated, at which point the width is longer than the length.

As neither reference discloses or in any way suggests a shearwall or the other above-described features, it is respectfully submitted that claims 38-39, specifically directed to shearwalls, are patentable over the cited references, taken alone or in combination with each other. It is therefore respectfully requested that the rejection of claims 38-39 under 35 U.S.C. §103(a) be withdrawn.

Rejection of Claims 40-41 Under 35 U.S.C. §103(a)

Claim 40-41 are rejected under 35 U.S.C. §103(a) as being obvious over DeRees in view of Krotsch, and further in view of Flachbarth.

Claims 40 and 41 are directly or indirectly dependent on claim 38. As discussed above, claim 38 is patentable over the combination of DeRees and Krotsch. Flachbarth adds nothing to the combination of DeRees and Krotsch in this regard. It is therefore respectfully submitted that claims 40 and 41 are patentable over the cited references at least for the grounds set forth above. Namely, the combination of cited references fail to disclose or in any way suggest a shearwall, or that the height is at least two times greater than the width. Flachbarth adds nothing to the teachings of the references in this regard.

It is therefore respectfully requested that the rejection of claims 40-41 under 35 U.S.C. §103(a) be withdrawn.

Based on the above amendments and these remarks, it is respectfully requested that the remaining claims in the application pass to issue.

Should further questions remain, the Examiner is invited to contact the undersigned attorney by telephone.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 501826 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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